

(19) World Intellectual Property  
Organization  
International Bureau



556931

(43) International Publication Date  
9 December 2004 (09.12.2004)

PCT

(10) International Publication Number  
**WO 2004/106346 A1**

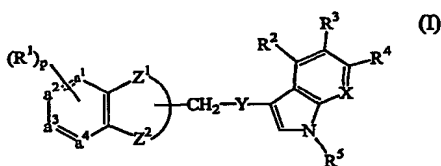
- (51) International Patent Classification<sup>7</sup>: **C07D 498/04**, 491/04, A61K 31/5383, 31/436, 31/4355, A61P 25/18 // (C07D 498/04, 265:00, 221:00) (C07D 491/04, 319:00, 221:00), 491/04
- (21) International Application Number:  
PCT/EP2004/050922
- (22) International Filing Date: 26 May 2004 (26.05.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
PCT/EP03/05789 30 May 2003 (30.05.2003) EP
- (71) Applicant (for all designated States except US): **JANSSEN PHARMACEUTICA N.V.** [BE/BE]; Turnhoutseweg 30, B-2340 Beerse (BE).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **BARTOLOMÉ-NEBREDÁ, José, Manuel** [ES/ES]; c/o Janssen Cilag S.A., Edificio Johnson & Johnson, Paseo de las Doce Estrellas 5-7, Campo de las Naciones, E-28042 Madrid (ES). **ANDRÉS-GIL, José, Ignacio** [ES/ES]; c/o Janssen Cilag S.A., Edificio Johnson & Johnson, Paseo de las Doce Estrellas 5-7, Campo de las Naciones, E-28042 Madrid (ES).
- (74) Common Representative: **JANSSEN PHARMACEUTICA N.V.**; Turnhoutseweg 30, B-2340 Beerse (BE).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: INDOLE DERIVATIVES WITH AN IMPROVED ANTIPSYCHOTIC ACTIVITY



(57) Abstract: The present invention relates to a novel indol derivative according to Formula (I), a pharmaceutically acceptable acid or base addition salt thereof, a stereochemically isomeric form thereof, an N-oxide form thereof or a quaternary ammonium salt thereof, wherein the variables R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup>, R<sup>5</sup>, p, a<sup>1</sup>=a<sup>2</sup>a<sup>3</sup>=a<sup>4</sup>, Z<sup>1</sup>-Z<sup>2</sup>, X and Y are defined as in claim 1. Said derivative exhibit a binding affinity towards dopamine receptors, in particular towards dopamine D<sub>2</sub>, D<sub>3</sub> and D<sub>4</sub> receptors, with selective serotonin reuptake inhibition properties and acting as 5-HT<sub>1A</sub> agonists or partial agonists. The invention also relates to

pharmaceutical compositions comprising the compounds according to the invention, the use thereof for the prevention and/or treatment of a range of psychiatric and neurological disorders, in particular certain psychotic disorders, most in particular schizophrenia and processes for their production.